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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,100	07/08/2003	Norio Yuki	3120-101	7644
28410	7590	02/10/2005	EXAMINER	
LINIAK, BERENATO & WHITE, LLC			YEE, DEBORAH	
6550 ROCK SPRING DRIVE			ART UNIT	
SUITE 240			PAPER NUMBER	
BETHESDA, MD 20817			1742	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/614,100	<b>Applicant(s)</b> YUKI ET AL.	
	<b>Examiner</b> Deborah Yee	<b>Art Unit</b> 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida et al. (US Patent 6,592,810).

3. Nishida in claim 5 of column 12 discloses a Fe-Ni-Co alloy composition having constituents whose wt% ranges overlap those recited by the claims; such overlap renders applicant's composition prima facie obvious because it would be obvious to one of ordinary skill in the art to select the claimed wt% ranges from the broader disclosure of the prior art since the prior art has the same utility (shadow mask) with similar properties ( high strength and low thermal expansion). See MPEP 2144.05.

4. Moreover, prior art claim 6 of column 12 discloses a grain size of not less than 10 which overlaps with the grain size of 7.0 to 10.0 recited by claims 1 and 3. Also prior art claim 5 discloses carbide size being less than 5 microns and is within the 0.2 to 5 microns recited in claims 2 and 3. Even though the carbide density of 0.5 to 1.5microns/mm<sup>3</sup> recited by claim 2 and 3 is not taught by prior art, such would be expected since compositional limitations are closely met and in absence of proof to the contrary.

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5. Nishida, also, discloses specific examples in tables 1-3 containing greater than 0.03%Si , and hence is within the Si range of 0.03 to 0.10% recited by claim 4.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Etoh (US Publication 2002/0117241).

7. Etoh in claim 1 of columns 6 and 7 discloses a Fe-Ni-Co alloy composition having constituents whose wt% ranges overlap those recited by the claims; such overlap renders applicant's composition prima facie obvious because it would be obvious to one of ordinary skill in the art to select the claimed wt% ranges from the broader disclosure of the prior art since the prior art has the same utility (shadow mask) with similar properties ( high strength and low thermal expansion). See MPEP 2144.05.

8. Moreover, prior art claim 1 disclose a steel having a grain size number of 9-12 which overlaps and suggest the claimed range of 7-10.

9. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the English abstract of German patent 3636815.

10. The English abstract of German '815 discloses a Fe-Ni-Co alloy composition having constituents whose wt% ranges overlap those recited by the claims; such overlap renders applicant's composition prima facie obvious because it would be obvious to one of ordinary skill in the art to select the claimed wt% ranges from the broader disclosure of the prior art since the prior art has the same utility (shadow mask) with similar properties ( high strength and low thermal expansion). See MPEP 2144.05.

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11. Moreover, abstract discloses a grain size of 7 or higher which would suggest the claimed range of 7-10. Also specific prior art examples contain Si within the range of 0.03 to 0.10% recited by claim 4.

12. The unapplied references have been cited to further depict the state of the art in Fe-Ni-Co alloys.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Deborah Yee  
Primary Examiner  
Art Unit 1742

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